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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Isao OTA et al.

Group Art Unit: 1792

Application No.: 10/015,675

Examiner: M. ANGADI

Filed: December 17, 2001

Docket No.: 111483

For: CERIUM OXIDE SOL AND ABRASIVE

APPLICANTS' RECORD OF THE SUBSTANCE OF THE INTERVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants appreciate the courtesies shown to Applicants' representative by Examiners Angadi and Tran in the March 25, 2010 personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

During the interview, the rejections of the independent claims under 35 U.S.C. §103(a) were discussed. Applicants' representative argued that the pH recited in the independent claims was not disclosed in the Tastu reference as asserted in the Office Action. Specifically, Applicants' representative asserted that the pH referenced in the Office Action as allegedly disclosing the pH recited in the independent claims was directed to a cerium salt solution that is used to form ceric oxide that is separated and eventually used in a solution. Thus, Applicants' representative argued that the pH disclosed in Tastu could not reasonably be attributed to an abrasive comprising cerium oxide, as recited in the independent claims.

The Examiners also requested that Applicants' representative point out specific portions of the specification that support the pH recited in the independent claims.

Applicants' representative pointed to paragraph [0021] of the specification, which recites a pH of 1-6. Applicants' representative also pointed to the Examples, specifically paragraphs [0057], [0061], [0071] and [0075], all of which recite an abrasive solution with a sol having a pH of 3 to less than 5, as recited in the independent claims.

The Examiners stated that they would consider the above arguments in detail when reviewing Applicants' response and preparing the next Patent Office communication.

In addition, although not specifically discussed during the interview, Fig. 3 in the specification is a chart that shows the zeta potential measured for four sols comprising particles with an La/(Ce + La) molar ratio of 0 (■), 0.01 (▲), 0.05 (●) or 0.10 (◆) dispersed in water. The particles in the molar ratio of 0.01, 0.05, and 0.10 have a higher change in zeta (surface) potential, and this change in zeta (surface) potential sets up a border between the molar ratios of 0 and 0.01. *See* specification, paragraph [0089]. As shown in Fig. 3 of the specification, cerium oxide containing La has a high zeta (surface) potential at a pH from 3-5 and, thus, a stable sol can be formed in a pH range of 3-5. In contrast, when the zeta (surface) potential is near 0, repulsive forces between the particles are weak and aggregation occurs. Thus, the claimed pH of from 3 to less than 5 provides a more stable sol.

In view of the above, in addition to the amendments and arguments made in the Amendment filed on March 4, 2010, reconsideration and allowance of the claims are respectfully requested.

Respectfully submitted,



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Date: April 15, 2010

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